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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,598	01/18/2005	Stefano De Luigi Brushci	451225-new	2778

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EXAMINER	
ROGERS, JAMES WILLIAM	
ART UNIT	PAPER NUMBER
1618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,598	DE LUIGI BRUSHCI ET AL.	
	Examiner	Art Unit	
	JAMES W. ROGERS	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-39* is/are pending in the application.

4a) Of the above claim(s) *29-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/07/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of group I in the reply filed on 12/04/2008 is acknowledged. The traversal is on the ground(s) that the examiners request is insufficient because the examiner has not shown that the alternative process if materially different than the claimed method and thus there would be no search burden. As recited previously US 6,238,703 teaches a layering technique by either rotor granulation or pan coating which is different than applicants claimed technique of coating the particle with ethylcellulose by separation microencapsulation or fluidized bed coating as detailed in dependent claim 30. It is further noted by the examiner that in order to make a composition as claimed in claim 15 one of ordinary skill would not necessarily have to coat the composition with the acylate polymer as required in claim 29, instead the acrylate polymer could be a shell in which the an ethylcellulose coated particle is then transferred to as in a capsule. Therefore the examiner has withdrawn claims 29-39 as being drawn to an unelected invention.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically claim 15 now recites that the composition contains microparticles comprising drug, however throughout the specification the drug is always referred to as "drug microparticles", it is never recited that the microparticles can contain any other constituent besides the drug. The transitional phrase “comprising” is open ended and does not exclude additional ingredients such as excipients, binders ect. The specification does not support a microparticle that can contain any other ingredient besides the active drug, essentially the drug is the microparticle. Applicants have broadened their own definition within their specification as to the composition of the microparticle.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically claim 23 recites drug potency in terms of mg/g, however it is not clear from the claim what the units mg and g is referring. From the specification the drug potency appeared to be a measure of the amount of drug in mg per g of dosage form after the microcapsule was produced, thus the examiner interpreted the limitation as such, however further clarification within the claim is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 15-17,19-21,23-24 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Percel et al. (US 6,451,345 B1, cited by applicants).

Percel teaches taste masked microcapsules of the antibiotic linezolid, the microcapsules were produced by coating Linezolid crystals with a microencapsulation polymer, preferably ethyl cellulose, and then further coated of with an enteric coating including methacrylic acid-methacrylate copolymers such as Eudragit L and S. See abstract, col 2 lin59-col 3 lin 41 and examples 1-3. Regarding claim 17 the amount of enteric coating used within the examples was 30 and 40 wt%, within applicants claimed range (30 and 40% weight gain for the formulations after they were coated with Eudragit). Regarding claims 19-20, from the examples when ethylcellulose was coated over the drug particles the weight gain was 30 and 20%, thus the ratio of drug to ethylcellulose would be 10:3 and 5:1 within applicants claimed range. Regarding claim 21 Percel teaches that the particle size of the microcapsules is preferably in the range of 10 to 500 microns, within applicants claimed range. Regarding claim 23, it is noted by the examiner that the limitation of 400mg to 900 mg of drug per 1 g of total dosage form

is essentially a limitation of the wt% of active in the composition and a wt % within a range of 40-95 % will read on the claimed limitation (.45g/1x100 and .95g/100x100). The amount of active used within the examples of Percel was 40wt% and 50wt%, (this was deduced by noting the weight after the coatings were applied to the linezolid crystals). Regarding claim 24 since the drug composition of Percel is within applicants claimed scope it is inherent that the same composition will have the same dissolution properties when ingested orally. Regarding claims 27-28 Percel teaches several different administrable forms including tables and capsules. See col 4 lin 8-12.

Claims 15-17,19-20 and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Holt et al.(WO 00/30617, cited by applicants).

Holt teaches a taste masked rapid release coating system comprised of a drug core (can include gatifloxacin a quinolone derivative), a spacing layer that includes ethyl cellulose and a taste masking layer that includes Eudragit polymers. See abstract, pag 5 lin 24-pag 6 lin 20, pag 9 lin 1-13, pag 10 lin 4, pag 11 lin 7-10 and examples. Regarding claim 17 the amount of enteric coating used within example 1 was 30% within applicants claimed range. Regarding claims 19 and 20, from example 1, when ethylcellulose was coated over the drug particles the weight gain was 20%, thus the ratio of drug to ethylcellulose would be 5:1 within applicants claimed range. Regarding claim 23, it is noted by the examiner that the limitation of 400mg to 900mg of drug is contained per 1 g of total dosage form is essentially a limitation of the wt% of active in the composition and a wt % within a range of 40-95 % will read on the claimed limitation (.45g/1x100 and .95g/100x100). The amount of active used in example 1 was 50 wt%

(this was deduced by noting the weight after the coatings were applied to dextromethorphan). Regarding claim 24 since the drug composition of Holt is within applicants claimed scope it is inherent that the same composition will have the same dissolution properties when ingested orally. Regarding claims 27-28 Holt teaches different administrable forms including tables and capsules. See pag 17 lin 1-7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 15-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Percel et al. (US 6,451,345 B1).

Percel is disclosed above. Percel discloses acrylate polymers as a secondary coating in amounts of 30 and 40 wt% within the examples and also disclosed that the enteric coating could be from 20 to 50 wt%, overlapping applicants claimed range for claim 18 but not within the claimed range. See examples and col 3 lin 46. However the amount of enteric coating used to coat a drug formulation is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of enteric coating in order to best achieve the desired results including masking any unpleasant taste from the active and in order to control the location in which the dosage form is absorbed in the digestive tract. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of the amount of coating would have been obvious at the time of Applicant's invention. Furthermore a prima facie case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art. E.g., In re Geusler, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997); In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (CCPA 1976); In re Malagari, 449 F.2d 1297, 1202,

182 USPQ 549, 553 (CCPA 1974). It is the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages. See In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980) ("[D]iscovery of an optimum value of the result effective variable in a known process is ordinarily within the skill of the art." See, e.g., In re Baird, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). *In re Paterson* Appeal No. 02-1189 (Fed. Cir. January 8, 2003). Also while Percel discloses that the particle size of the microcapsules is preferably in the range of 10 to 500 microns which overlaps applicants claimed size in claim 22 the size of the microcapsules is not within applicants claimed size range. Once again however the size of a capsule form is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal particle size for a micronized pharmaceutical dosage form in order to achieve the desired characteristics including its bioavailability and processability. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of the size of the microcapsules would have been obvious at the time of Applicant's invention.

Claims 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt et al.(WO 00/30617).

Holt is disclosed above. Holt discloses acrylate polymers as a secondary coating in amounts of 30 wt% within the examples and also disclosed that the enteric coating could be from about 20 to about 70 wt%, overlapping applicants claimed range for claim 18 but not within the claimed range. See examples and pag 9 lin 9. However the amount of enteric coating used to coat a drug formulation is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of enteric coating in order to best achieve the desired results such as masking unpleasant taste and controlling the location in which the dosage form is absorbed in the digestive tract. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of the amount of coating would have been obvious at the time of Applicant's invention. Furthermore a prima facie case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art. E.g., In re Geusler, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997); In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (CCPA 1976); In re Malagari, 449 F.2d 1297, 1202, 182 USPQ 549, 553 (CCPA 1974). It is the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages. See In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980) (“[D]iscovery of an optimum value of the result effective

variable in a known process is ordinarily within the skill of the art." See, e.g., In re Baird, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). *In re Paterson* Appeal No. 02-1189 (Fed. Cir. January 8, 2003). Also while Holt discloses that the particle size of the particles are preferably less than 850 microns the reference is silent as to the lower size limit, thus the reference does not disclose a size range within applicants claimed range in claims 21 and 22. Once again however the size of a drug particle is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal particle size for a micronized pharmaceutical dosage form in order to achieve the desired characteristics including bioavailability and processability. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of the size of the microcapsules would have been obvious at the time of Applicant's invention.

Conclusion

No claims are allowed. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Rogers, Ph.D. whose telephone number is (571) 272-7838. The examiner can normally be reached on 9:30-6:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael G. Hartley/
Supervisory Patent Examiner, Art Unit 1618